

REMARKS

1. Claim Rejections - 35 U.S.C. § 112

Claims 18 and 19 have been rejected under 35 U.S.C. § 112, second paragraph. In particular, the phrase "may be" appearing in claim 18 was found by the Examiner to be indefinite. Claim 18 has been amended to more clearly recite features of the invention. Claim 19 depends from claim 18. In view of the amendment, reconsideration and withdrawal of the rejection under 35 U.S.C. § 112, second paragraph, is requested.

2. Claims Rejections - 35 U.S.C. § 103

2.1 Claims 1-2, 6-10 and 17

Claims 1-2, 6-10 and 17 have been rejected under 35 U.S.C. § 103(a) over GB 2 279 750 to Ryan in view of International Patent Application Publication No. WO 00/20959 to Rapaich. Claims 1-2 and 6-8 have been cancelled. Independent claim 9 has been amended to include the features of former claim 20, which has been cancelled. Claims 10 and 17 depend from claim 9.

As indicated by the Examiner on page 7 of the Action, the features now recited by independent claim 9 are not taught by the combination of Ryan and Rapaich. In view of the foregoing, reconsideration and withdrawal of these rejections under 35 U.S.C. § 103(a) is respectfully requested.

2.2 Claims 4 and 12

Claims 4 and 12 have been rejected under 35 U.S.C. § 103(a) over Ryan in view of Rapaich, and further in view of U.S. Patent No. 6,661,410 to Casebolt. Claim 4 has been cancelled. Claim 12 depends from claim 9. Also, Casebolt does not cure the deficiencies of the proposed Ryan/Rapaich combination. Thus, even if this combination were made, the claimed subject matter would not result. Therefore, reconsideration and withdrawal of these rejections under 35 U.S.C. § 103(a) is respectfully requested.

2.3 Claims 14-16 and 20-24

Claims 14-16 and 20-24 have been rejected over Ryan in view of Rapaich, and further in view of U.S. Patent No. 6,587,093 to Shaw. Claims 14 and 20 has been cancelled. Claims 15 and 16 have been amended to depend indirectly from claim 9 via claim 21. Claims 21-24 now depend directly or indirectly from claim 9.

Since independent claim 9 has been amended to include the features of former claim 20, the merits of the rejection of former claim 20 will be discussed.

Ryan is directed to a capacitive proximity sensor that relies on electrode sets that "are supplied with alternating voltages so that an alternating electric field is produced in their vicinity. Conductive or dielectric bodies entering this field affect the field so that the current from the electrode(s) that creates the field is affected." (Ryan, page 4) Therefore, Ryan relies on an active electrode arrangement from which an electric field emanates. In contrast, the claimed subject matter relies on a different implementing principle. In particular, a passive conductive part is arranged so that an approaching finger influences frequency changes in the claimed resonant circuit.

Rapaich is directed to an input mechanism that uses a track ball and a touch sensor arranged to activate a switch for providing power to the input mechanism. The switch is based on the principle that a user who places a finger near the touch sensor will affect the capacitance of the switch.

Shaw is added to the combination of Ryan and Rapaich for disclosing "sensing a capacitance change at the pointing device" (Office Action at page 8, emphasis added). While the Examiner did not properly describe how Shaw operates, it is still clear that Shaw discloses a pointing device (a mouse) having a capacitive detecting device wherein variations in capacitance are measured. That is, like Ryan and Rapaich, Shaw is based on a different operating principle than the claimed subject matter. Shaw uses a position of a conductor 708 located in the ball 710 to establish a capacitive arrangement between plates 702 and 704. This allows Shaw to detect movement of the ball for sensing user input. Shaw does not employ using changes in frequency of a resonant circuit as set forth in claim 9.

In this regard, the combination of Ryan, Rapaich and Shaw is not instructive of all of the features that are claimed. The claimed input device includes an activity sensor that has a resonant circuit having a frequency that changes when a finger of a user approaches a passive conductive part of a user-manipulable member. The claimed relationship of the components includes the feature that there is a passive capacitive interaction among the user's finger (when present), the conductive part and the resonant circuit, and that the frequency of the resonant circuit is changed due to an approaching finger. A detector device detects the change in frequency to initiate the energization of the pointing device.

Therefore, even if one were to combine the references in the manner that has been proposed, the claimed subject matter would not result. Missing from the combination would be a passive capacitive interaction among the user's finger (when present), the conductive part and the resonant circuit that are arranged so that the frequency of the resonant circuit is changed due to an approaching finger. While the Examiner has identified references that disclose some similar devices, the Examiner merely takes parts from the various references and asserts that they arrive at the claimed arrangement. But each of the references work on a different operating principle and, therefore, a great amount of ingenuity would still be required to modify the combined teachings to operate in the claimed manner. As such, the rejection is deficient since the claimed invention does not result from the mere cobbling together of parts that were selected with impermissible hindsight from the references as has been set forth in the Office Action.

Also, a person of ordinary skill in the art would not attempt the proposed combination. For instance, Shaw is not used to "wake-up" the input device. Rather, the Shaw arrangement is used to sense mouse motion. In contrast, claim 9 states that the activity sensor is configured to sense activation and enable energization of the pointing device. Therefore, a person seeking to improve how an input device "wakes-up" would not look to Shaw since such functionality is not disclosed by Shaw.

In view of the foregoing, reconsideration and withdrawal of these rejections under 35 U.S.C. § 103(a) is respectfully requested.

2.4 Claims 18 and 19

Claims 18 and 19 have been rejected over Ryan in view of Rapaich, and further in view of EP 0 463 856 to Virkkunen. Claims 18 and 19 depend from claim 9. Also, Virkkunen does not cure the deficiencies of the proposed Ryan/Rapaich combination. Thus, even if this combination were made, the claimed subject matter would not result. Therefore, reconsideration and withdrawal of these rejections under 35 U.S.C. § 103(a) is respectfully requested.

3. Conclusion

In light of the foregoing, it is respectfully submitted that the present application is in condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 18-0988.

Respectfully submitted,

RENNER, OTTO, BOISSELLE & SKLAR, LLP

By /MDavidGalin/
M. David Galin; Reg. No. 41,767

1621 Euclid Avenue
Nineteenth Floor
Cleveland, Ohio 44115
Telephone: (216) 621-1113
Facsimile: (216) 621-6165

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